●0360
1633

OIPE
#5
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P.2.

```
         RAW SEQUENCE LISTING              DATE: 12/19/2001
         PATENT APPLICATION:  US/09/840,704   TIME: 13:05:37

         Input Set : N:\Crf3\RULE60\09840704.raw
         Output Set: N:\CRF3\12192001\I840704.raw
```

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 1 <110> APPLICANT: Dedhar, Shoukat
 2        Hannigan, Greg
 3 <120> TITLE OF INVENTION: Intergrin-Linked Kinase and its Uses
 4 <130> FILE REFERENCE: KIN-2CON
 5 <140> CURRENT APPLICATION NUMBER: 09/840,704
 6 <141> CURRENT FILING DATE: 2001-04-23
 7 <150> PRIOR APPLICATION NUMBER: 09/566,906
 8 <151> PRIOR FILING DATE: 2000-05-09
 9 <150> PRIOR APPLICATION NUMBER: US08/752,345
10 <151> PRIOR FILING DATE: 1996-11-19
11 <160> NUMBER OF SEQ ID NOS: 16
12 <170> SOFTWARE: FastSEQ for Windows Version 4.0
14 <210> SEQ ID NO: 1
15 <211> LENGTH: 1789
16 <212> TYPE: DNA
17 <213> ORGANISM: H. sapiens
18 <220> FEATURE:
19 <221> NAME/KEY: CDS
20 <222> LOCATION: (157)...(1512)
21 <221> NAME/KEY: Other
22 <222> LOCATION: (0)...(0)
23 <400> SEQUENCE: 1
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W--> 21 <221> NAME/KEY: Other

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24     gaattcatct gtcgactgct accacgggag ttccccggag aaggatactg tcagcccgagt      60
25     cccgaggata aagcttgggg ttcatcctcc ttccctggat cactccacag tcctcaggct     120
26     tccccaatcc aggggactcg gcgccgggac gctgct atg                           174
27                                                 Met Asp Asp Ile Phe Thr
28                                                  1               5
29     cag tgc cgg gag ggc aac gca gtc gcc gtt cgc ctg tgg ctg gac aac     222
30     Gln Cys Arg Glu Gly Asn Ala Val Ala Val Arg Leu Trp Leu Asp Asn
31                   10                  15                  20
32     acg gag aac gac ctc aac cag ggg gac gat cat ggc ttc tcc ccc ttg     270
33     Thr Glu Asn Asp Leu Asn Gln Gly Asp Asp His Gly Phe Ser Pro Leu
34                   25                  30                  35
35     cac tgg gcc tgc cga gag ggc cgc tct gct gtg gtt gag atg ttg atc     318
36     His Trp Ala Cys Arg Glu Gly Arg Ser Ala Val Val Glu Met Leu Ile
37            40                  45                  50
38     atg cgg ggg gca cgg atc aat gta atg aac cgt ggg gat gac acc ccc     366
39     Met Arg Gly Ala Arg Ile Asn Val Met Asn Arg Gly Asp Asp Thr Pro
40     55                  60                  65                  70
41     ctg cat ctg gca gcc agt cat gga cac cgt gat att gta cag aag cta     414
42     Leu His Leu Ala Ala Ser His Gly His Arg Asp Ile Val Gln Lys Leu
43                   75                  80                  85
44     ttg cag tac aag gca gac atc aat gca gtg aat gaa cac ggg aat gtg     462
45     Leu Gln Tyr Lys Ala Asp Ile Asn Ala Val Asn Glu His Gly Asn Val
46                   90                  95                 100
47     ccc ctg cac tat gcc tgt ttt tgg ggc caa gat caa gtg gca gag gac     510
48     Pro Leu His Tyr Ala Cys Phe Trp Gly Gln Asp Gln Val Ala Glu Asp
```

RAW SEQUENCE LISTING   DATE: 12/19/2001
PATENT APPLICATION: US/09/840,704   TIME: 13:05:37

Input Set : N:\Crf3\RULE60\09840704.raw
Output Set: N:\CRF3\12192001\I840704.raw

```
49            105               110               115
50   ctg gtg gca aat ggg gcc ctt gtc agc atc tgt aac aag tat gga gag    558
51   Leu Val Ala Asn Gly Ala Leu Val Ser Ile Cys Asn Lys Tyr Gly Glu
52            120               125               130
53   atg cct gtg gac aaa gcc aag gca ccc ctg aga gag ctt ctc cga gag    606
54   Met Pro Val Asp Lys Ala Lys Ala Pro Leu Arg Glu Leu Leu Arg Glu
55   135               140               145               150
56   cgg gca gag aag atg ggc cag aat ctc aac cgt att cca tac aag gac    654
57   Arg Ala Glu Lys Met Gly Gln Asn Leu Asn Arg Ile Pro Tyr Lys Asp
58                 155               160               165
59   aca ttc tgg aag ggg acc acc cgc act cgg ccc cga aat gga acc ctg    702
60   Thr Phe Trp Lys Gly Thr Thr Arg Thr Arg Pro Arg Asn Gly Thr Leu
61                 170               175               180
62   aac aaa cac tct ggc att gac ttc aaa cag ctt aac ttc ctg acg aag    750
63   Asn Lys His Ser Gly Ile Asp Phe Lys Gln Leu Asn Phe Leu Thr Lys
64            185               190               195
65   ctc aac gag aat cac tct gga gag cta tgg aag ggc cgc tgg cag ggc    798
66   Leu Asn Glu Asn His Ser Gly Glu Leu Trp Lys Gly Arg Trp Gln Gly
67            200               205               210
68   aat gac att gtc gtg aag gtg ctg aag gtt cga gac tgg agt aca agg    846
69   Asn Asp Ile Val Val Lys Val Leu Lys Val Arg Asp Trp Ser Thr Arg
70   215               220               225               230
71   aag agc agg gac ttc aat gaa gag tgt ccc cgg ctc agg att ttc tcg    894
72   Lys Ser Arg Asp Phe Asn Glu Glu Cys Pro Arg Leu Arg Ile Phe Ser
73                 235               240               245
74   cat cca aat gtg ctc cca gtg cta ggt gcc tgc cag tct cca cct gct    942
75   His Pro Asn Val Leu Pro Val Leu Gly Ala Cys Gln Ser Pro Pro Ala
76                 250               255               260
77   cct cat cct act ctc atc aca cac tgg atg ccg tat gga tcc ctc tac    990
78   Pro His Pro Thr Leu Ile Thr His Trp Met Pro Tyr Gly Ser Leu Tyr
79            265               270               275
80   aat gta cta cat gaa ggc acc aat ttc gtc gtg gac cag agc cag gct   1038
81   Asn Val Leu His Glu Gly Thr Asn Phe Val Val Asp Gln Ser Gln Ala
82            280               285               290
83   gtg aag ttt gct ttg gac atg gca agg ggc atg gcc ttc cta cac aca   1086
84   Val Lys Phe Ala Leu Asp Met Ala Arg Gly Met Ala Phe Leu His Thr
85   295               300               305               310
86   cta gag ccc ctc atc cca cga cat gca ctc aat agc cgt agt gta atg   1134
87   Leu Glu Pro Leu Ile Pro Arg His Ala Leu Asn Ser Arg Ser Val Met
88                 315               320               325
89   att gat gag gac atg act gcc cga att agc atg gct gat gtc aag ttc   1182
90   Ile Asp Glu Asp Met Thr Ala Arg Ile Ser Met Ala Asp Val Lys Phe
91                 330               335               340
92   tct ttc caa tgt cct ggt cgc atg tat gca cct gcc tgg gta gcc ccc   1230
93   Ser Phe Gln Cys Pro Gly Arg Met Tyr Ala Pro Ala Trp Val Ala Pro
94            345               350               355
95   gaa gct ctg cag aag aag cct gaa gac aca aac aga cgc tca gca gac   1278
96   Glu Ala Leu Gln Lys Lys Pro Glu Asp Thr Asn Arg Arg Ser Ala Asp
97            360               365               370
```

RAW SEQUENCE LISTING   DATE: 12/19/2001
PATENT APPLICATION: US/09/840,704   TIME: 13:05:37

Input Set : N:\Crf3\RULE60\09840704.raw
Output Set: N:\CRF3\12192001\I840704.raw

```
 98        atg tgg agt ttt gca gtg ctt ctg tgg gaa ctg gtg aca cgg gag gta      1326
 99        Met Trp Ser Phe Ala Val Leu Leu Trp Glu Leu Val Thr Arg Glu Val
100         375             380             385             390
101        ccc ttt gct gac ctc tcc aat atg gag att gga atg aag gtg gca ttg      1374
102        Pro Phe Ala Asp Leu Ser Asn Met Glu Ile Gly Met Lys Val Ala Leu
103                         395             400             405
104        gaa ggc ctt cgg cct acc atc cca cca ggt att tcc cct cat gtg tgt      1422
105        Glu Gly Leu Arg Pro Thr Ile Pro Pro Gly Ile Ser Pro His Val Cys
106                         410             415             420
107        aag ctc atg aag atc tgc atg aat gaa gac cct gca aag cga ccc aaa      1470
108        Lys Leu Met Lys Ile Cys Met Asn Glu Asp Pro Ala Lys Arg Pro Lys
109             425             430             435
110        ttt gac atg att gtg cct atc ctt gag aag atg cag gac aag           1512
111        Phe Asp Met Ile Val Pro Ile Leu Glu Lys Met Gln Asp Lys
112             440             445             450
113        taggactgga aggtccttgc ctgaactcca gaggtgtcgg gacatggttg ggggaatgca     1572
114        cctccccaaa gcagcaggcc tctggttgcc tcccccgcct ccagtcatgg tactacccca     1632
115        gcctggggtc catccccttc ccccatccct accactgtgc gcaagagggg cgggctcaga     1692
116        gctttgtcac ttgccacatg gtgtctccca acatgggagg gatcagcccc gcctgtcaca     1752
117        ataaagttta ttatgaaaaa aaaaaaaaaa aaaaaaa                              1789
119  <210> SEQ ID NO: 2
120  <211> LENGTH: 452
121  <212> TYPE: PRT
122  <213> ORGANISM: H. sapiens
123  <400> SEQUENCE: 2
124        Met Asp Asp Ile Phe Thr Gln Cys Arg Glu Gly Asn Ala Val Ala Val
125         1               5               10              15
126        Arg Leu Trp Leu Asp Asn Thr Glu Asn Asp Leu Asn Gln Gly Asp Asp
127                         20              25              30
128        His Gly Phe Ser Pro Leu His Trp Ala Cys Arg Glu Gly Arg Ser Ala
129                         35              40              45
130        Val Val Glu Met Leu Ile Met Arg Gly Ala Arg Ile Asn Val Met Asn
131             50              55              60
132        Arg Gly Asp Asp Thr Pro Leu His Leu Ala Ala Ser His Gly His Arg
133         65              70              75              80
134        Asp Ile Val Gln Lys Leu Leu Gln Tyr Lys Ala Asp Ile Asn Ala Val
135                         85              90              95
136        Asn Glu His Gly Asn Val Pro Leu His Tyr Ala Cys Phe Trp Gly Gln
137                         100             105             110
138        Asp Gln Val Ala Glu Asp Leu Val Ala Asn Gly Ala Leu Val Ser Ile
139                         115             120             125
140        Cys Asn Lys Tyr Gly Glu Met Pro Val Asp Lys Ala Lys Ala Pro Leu
141             130             135             140
142        Arg Glu Leu Leu Arg Glu Arg Ala Glu Lys Met Gly Gln Asn Leu Asn
143         145             150             155             160
144        Arg Ile Pro Tyr Lys Asp Thr Phe Trp Lys Gly Thr Thr Arg Thr Arg
145                         165             170             175
146        Pro Arg Asn Gly Thr Leu Asn Lys His Ser Gly Ile Asp Phe Lys Gln
147                         180             185             190
```

RAW SEQUENCE LISTING   DATE: 12/19/2001
PATENT APPLICATION: US/09/840,704   TIME: 13:05:37

Input Set : N:\Crf3\RULE60\09840704.raw
Output Set: N:\CRF3\12192001\I840704.raw

```
148   ·   Leu Asn Phe Leu Thr Lys Leu Asn Glu Asn His Ser Gly Glu Leu Trp
149           195                 200                 205
150       Lys Gly Arg Trp Gln Gly Asn Asp Ile Val Val Lys Val Leu Lys Val
151           210                 215                 220
152       Arg Asp Trp Ser Thr Arg Lys Ser Arg Asp Phe Asn Glu Glu Cys Pro
153       225                 230                 235                 240
154       Arg Leu Arg Ile Phe Ser His Pro Asn Val Leu Pro Val Leu Gly Ala
155           245                 250                 255
156       Cys Gln Ser Pro Pro Ala Pro His Pro Thr Leu Ile Thr His Trp Met
157           260                 265                 270
158       Pro Tyr Gly Ser Leu Tyr Asn Val Leu His Glu Gly Thr Asn Phe Val
159           275                 280                 285
160       Val Asp Gln Ser Gln Ala Val Lys Phe Ala Leu Asp Met Ala Arg Gly
161           290                 295                 300
162       Met Ala Phe Leu His Thr Leu Glu Pro Leu Ile Pro Arg His Ala Leu
163       305                 310                 315                 320
164       Asn Ser Arg Ser Val Met Ile Asp Glu Asp Met Thr Ala Arg Ile Ser
165           325                 330                 335
166       Met Ala Asp Val Lys Phe Ser Phe Gln Cys Pro Gly Arg Met Tyr Ala
167           340                 345                 350
168       Pro Ala Trp Val Ala Pro Glu Ala Leu Gln Lys Lys Pro Glu Asp Thr
169           355                 360                 365
170       Asn Arg Arg Ser Ala Asp Met Trp Ser Phe Ala Val Leu Leu Trp Glu
171           370                 375                 380
172       Leu Val Thr Arg Glu Val Pro Phe Ala Asp Leu Ser Asn Met Glu Ile
173       385                 390                 395                 400
174       Gly Met Lys Val Ala Leu Glu Gly Leu Arg Pro Thr Ile Pro Pro Gly
175           405                 410                 415
176       Ile Ser Pro His Val Cys Lys Leu Met Lys Ile Cys Met Asn Glu Asp
177           420                 425                 430
178       Pro Ala Lys Arg Pro Lys Phe Asp Met Ile Val Pro Ile Leu Glu Lys
179           435                 440                 445
180       Met Gln Asp Lys
181           450
183 <210> SEQ ID NO: 3
184 <211> LENGTH: 258
185 <212> TYPE: PRT
186 <213> ORGANISM: H. sapiens
187 <220> FEATURE:
W-->  188 <221> NAME/KEY: Other
189 <222> LOCATION: (1)...(258)
190 <400> SEQUENCE: 3
191       Asn Met Lys Glu Leu Lys Leu Leu Gln Thr Ile Gly Lys Gly Glu Phe
192       1                 5                 10                 15
193       Gly Asp Val Met Leu Gly Asp Tyr Arg Gly Asn Lys Val Ala Val Lys
194           20                 25                 30
195       Cys Ile Lys Asn Asp Ala Thr Ala Gln Ala Phe Leu Ala Glu Ala Ser
196           35                 40                 45
197       Val Met Thr Gln Leu Arg His Ser Asn Leu Val Gln Leu Leu Gly Val
```

RAW SEQUENCE LISTING   DATE: 12/19/2001
PATENT APPLICATION: US/09/840,704   TIME: 13:05:37

Input Set : N:\Crf3\RULE60\09840704.raw
Output Set: N:\CRF3\12192001\I840704.raw

```
198           50              55              60
199      Ile Val Glu Glu Lys Gly Gly Leu Tyr Ile Val Thr Glu Tyr Met Ala
200      65              70              75              80
201      Lys Gly Ser Leu Val Asp Tyr Leu Arg Ser Arg Gly Arg Ser Val Leu
202              85              90              95
203      Gly Gly Asp Cys Leu Leu Lys Phe Ser Leu Asp Val Cys Glu Ala Met
204              100             105             110
205      Glu Tyr Leu Glu Gly Asn Asn Phe Val His Arg Asp Leu Ala Ala Arg
206              115             120             125
207      Asn Val Leu Val Ser Glu Asp Asn Val Ala Lys Val Ser Asp Phe Gly
208              130             135             140
209      Leu Thr Lys Glu Ala Ser Ser Thr Gln Asp Thr Gly Lys Leu Pro Val
210      145             150             155             160
211      Lys Trp Thr Ala Pro Glu Ala Leu Arg Glu Lys Lys Phe Ser Thr Lys
212              165             170             175
213      Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Trp Glu Ile Tyr Ser Phe
214              180             185             190
215      Gly Arg Val Pro Tyr Pro Arg Ile Pro Leu Lys Asp Val Val Pro Arg
216              195             200             205
217      Val Glu Lys Gly Tyr Lys Met Asp Ala Pro Asp Gly Cys Pro Pro Ala
218              210             215             220
219      Val Tyr Glu Val Met Lys Asn Cys Trp His Leu Asp Ala Ala Met Arg
220      225             230             235             240
221      Pro Ser Phe Leu Gln Leu Arg Glu Gln Leu Glu His Ile Lys Thr His
222              245             250             255
223      Glu Leu
225 <210> SEQ ID NO: 4
226 <211> LENGTH: 256
227 <212> TYPE: PRT
228 <213> ORGANISM: H. sapiens
229 <220> FEATURE:
W--> 230 <221> NAME/KEY: Other
231 <222> LOCATION: (1)...(256)
232 <400> SEQUENCE: 4
233      Ile Pro Arg Glu Ser Leu Arg Leu Glu Val Lys Leu Gly Gln Gly Cys
234      1               5               10              15
235      Phe Gly Glu Val Trp Met Gly Thr Trp Asn Gly Thr Thr Lys Val Ala
236              20              25              30
237      Ile Lys Thr Leu Lys Pro Gly Thr Met Met Pro Glu Ala Phe Leu Gln
238              35              40              45
239      Glu Ala Gln Ile Met Lys Lys Leu Arg His Asp Lys Leu Val Pro Leu
240      50              55              60
241      Tyr Ala Val Val Ser Glu Glu Pro Ile Tyr Ile Val Thr Glu Phe Met
242      65              70              75              80
243      Thr Lys Gly Ser Leu Leu Asp Phe Leu Lys Glu Gly Glu Gly Lys Phe
244              85              90              95
245      Leu Lys Leu Pro Gln Leu Val Asp Met Ala Ala Gln Ile Ala Asp Gly
246              100             105             110
247      Met Ala Tyr Ile Glu Arg Met Asn Tyr Ile His Arg Asp Leu Arg Ala
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VERIFICATION SUMMARY   DATE: 12/19/2001
PATENT APPLICATION: US/09/840,704   TIME: 13:05:38

Input Set : **N:\Crf3\RULE60\09840704.raw**
Output Set: **N:\CRF3\12192001\I840704.raw**

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L:21 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1
L:188 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:3
L:230 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:4
L:271 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:5
L:314 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6
L:357 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7
L:367 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:8
L:405 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:407 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:409 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
```